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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/652,139	08/29/2003	William J. Troyer	1880A1	1169

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PPG INDUSTRIES, INC.
Intellectual Property Department
One PPG Place
Pittsburgh, PA 15272

EXAMINER

MANSFIELD, THOMAS L

ART UNIT	PAPER NUMBER
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3623

MAIL DATE	DELIVERY MODE
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12/26/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/652,139	TROYER ET AL.	
	Examiner	Art Unit	
	Thomas Mansfield	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>16 January 2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

1. This action is in reply to the Application filed on 29 August 2003.
2. Claims 1-24 are currently pending and have been examined.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pulford (U.S. 6,952,679) in view of Sweeney et al (U.S. Pub. No. 2003/0111525).

5. CLAIMS 1 and 13:

With regard to Claims 1 and 13, Pulford teaches *a method of reporting on the quality of repair work performed on an article* (evaluate quality of service of an automobile repair shop) (see at least column 7, lines 24-26) *comprising the steps of:*

- *(b) generating quality data* (numerical ratings, Evaluation Form) *on the occurrences of quality problems of step (a)* (see at least column 5, lines 35-45 and FIG. 5A).
- *(c) electronically transferring the quality data to a computer database* (entered into the memory of a computer **160**) (see at least column 5, lines 66-67 and column 6, lines 1-4).
- *(d) sorting* (tallied and totaled) *the quality data in the database* (see at least column 5, lines 46-65).
- *(e) producing a report of the sorted quality data* (numerical ratings can be either stored or used immediately to generate managerial reports **170**) (see at least column 6, lines 4-13).

Pulford does not specifically teach *(a) identifying occurrences of quality problems in repair of an article at a repair facility*. Sweeney et al teaches *(a) identifying* (identify, identifiers) *occurrences of quality problems in repair of an article at a repair facility* in analogous art of a vehicle undergoing autobody repair for the purposes of "...reporting which of steps 22-66 takes the longest time and is a bottleneck in the repair process thus indicating opportunities for improving the efficiency of the repair process" (see at least paragraph 0026).

It would have been obvious to one of ordinary skill in the art at the time of the invention that the method and system of evaluating the performance of business operations as taught by Pulford would have benefited from the teachings of Sweeney et al to produce the predictable result of, "...reporting which of steps 22-66 takes the longest time and is a bottleneck in the repair

process thus indicating opportunities for improving the efficiency of the repair process" (Sweeney et al, paragraph 0026)..

6. CLAIMS 2 and 14:

With regard to Claims 2 and 14, Pulford does not specifically teach further comprising a step of generating estimate data on the estimated cost for repairing the article, the estimate data being transferred to the database. Sweeney et al teaches *further comprising a step of generating estimate data on the estimated cost for repairing the article, the estimate data being transferred to the database* in analogous art of a vehicle undergoing autobody repair for the purposes of "...an estimate of the cost to repair the damage to a vehicle is prepared" (see at least paragraph 0021).

It would have been obvious to one of ordinary skill in the art at the time of the invention that the method and system of evaluating the performance of business operations as taught by Pulford would have benefited from the teachings of Sweeney et al to produce the predictable result of, "an estimate of the cost to repair the damage to a vehicle is prepared" (Sweeney et al, paragraph 0021).

7. CLAIMS 3 and 15:

With regard to Claims 3 and 15, Pulford does not specifically teach *wherein the article is a vehicle and the repair facility is a vehicle repair facility*. Sweeney et al teaches *wherein the article is a vehicle (vehicle) and the repair facility is a vehicle repair facility (autobody repair shop)* in analogous art of a vehicle undergoing autobody repair for the purposes of "...determining the status of a vehicle undergoing repair in an autobody repair shop" (see at least paragraph 0006).

It would have been obvious to one of ordinary skill in the art at the time of the invention that the method and system of evaluating the performance of business operations as taught by Pulford would have benefited from the teachings of Sweeney et al to produce the predictable result of, "...determining the status of a vehicle undergoing repair in an autobody repair shop" (Sweeney et al, paragraph 0006).

8. CLAIMS 4 and 16:

With regard to Claims 4 and 16, Pulford does not specifically teach *wherein the quality problems are selected from the group consisting of incorrect estimate, failure to procure repair parts, procurement of incorrect repair parts, repair parts unavailable, improper welding, poor fit of parts, improper corrosion protection, poor workmanship, incomplete repair, insufficient vehicle protection and improper refinish color match*. Sweeney et al teaches *wherein the quality problems are selected from the group consisting of incorrect estimate, failure to procure repair parts, procurement of incorrect repair parts, repair parts unavailable (parts ordered), improper welding, poor fit of parts, improper corrosion protection (corrosion protection applied), poor workmanship, incomplete repair, insufficient vehicle protection and improper refinish color match (vehicle refinished)* (see at least paragraph 0020) in analogous art of a vehicle undergoing autobody repair for the purposes of "...assessing the performance of repairs shops R" (see at least paragraph 0019).

It would have been obvious to one of ordinary skill in the art at the time of the invention that the method and system of evaluating the performance of business operations as taught by Pulford would have benefited from the teachings of Sweeney et al to produce the predictable result of, "assessing the performance of repairs shops R" (Sweeney et al, paragraph 0019).

Sweeney et al teaches *wherein the quality problems are selected from the group consisting of incorrect estimate, failure to procure repair parts, procurement of incorrect repair parts, repair parts unavailable, improper welding, poor fit of parts, improper corrosion protection,*

poor workmanship, incomplete repair, insufficient vehicle protection and improper refinish color match. Pulford does not expressly teach the specific data recited in claims 4 and 16; however, these differences are only found in the non-functional descriptive material and are not functionally involved in the steps recited nor do they alter the recited structural elements. The recited method steps would be performed the same regardless of the specific data. Further, the structural elements remain the same regardless of the specific data. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994); MPEP 2106.

9. CLAIMS 5 and 17:

With regard to Claims 5 and 17, Pulford does not specifically teach *wherein the quality data includes information on the date of the repair and the report of step (e) identifies the quantity of quality problems in a time period.* Sweeney et al teaches *wherein the quality data includes information on the date of the repair* (the length of time (e.g., number of days)) and *the report of step (e) identifies the quantity of quality problems in a time period* in analogous art of a vehicle undergoing autobody repair for the purposes of, "...indicating the vehicles for which the status data is unchanged beyond a predetermined length of time and the unchanged status data for those vehicles" (see at least paragraph 0026).

It would have been obvious to one of ordinary skill in the art at the time of the invention that the method and system of evaluating the performance of business operations as taught by Pulford would have benefited from the teachings of Sweeney et al to produce the predictable result of, "...indicating the vehicles for which the status data is unchanged beyond a predetermined length of time and the unchanged status data for those vehicles" (Sweeney et al, paragraph 0026).

10. CLAIM 6:

With regard to Claim 6, Pulford does not specifically teach *wherein the report of step (e) compares the quantity of repairs having at least one occurrence of a quality problem in a time period to the total quantity of repairs performed in the time period*. Sweeney et al teaches *wherein the report of step (e) compares the quantity of repairs having at least one occurrence of a quality problem in a time period (predetermined length of time) to the total quantity of repairs performed in the time period* (reporting which of steps 22-66 takes the longest time and is a bottleneck) (see at least paragraph 0026) in analogous art of a vehicle undergoing autobody repair for the purposes of, "...indicating opportunities for improving the efficiency of the repair process" (see at least paragraph 0026).

It would have been obvious to one of ordinary skill in the art at the time of the invention that the method and system of evaluating the performance of business operations as taught by Pulford would have benefited from the teachings of Sweeney et al to produce the predictable result of "...indicating opportunities for improving the efficiency of the repair process" (Sweeney et al, paragraph 0026).

11. CLAIMS 7 and 18:

With regard to Claims 7 and 18, Pulford does not specifically teach *wherein the quality data further comprises identification of a stage of the repair at which the quality data was collected, the stage being selected from the group consisting of delivery of the vehicle to the repair facility, disassembly of the vehicle, frame repair, metal repair, mechanical repair, preparation for refinishing, application of refinish, reassembly of the vehicle and delivery of the vehicle to its owner*. Sweeney et al teaches *wherein the quality data further comprises identification of a stage of the repair (step in the repair process) at which the quality data was collected, the stage being selected from the group consisting of delivery of the vehicle to the repair facility (vehicle scheduled for repair), disassembly of the vehicle (vehicle disassembled),*

frame repair (structure and body), metal repair (metal work), mechanical repair, preparation for refinishing, application of refinish (refinished), reassembly of the vehicle and delivery of the vehicle to its owner (see at least paragraph 0020) in analogous art of a vehicle undergoing autobody repair for the purposes of, "...reporting which of steps 22-66 takes the longest time and is a bottleneck in the repair process thus indicating opportunities for improving the efficiency of the repair process" (see at least paragraph 0026).

It would have been obvious to one of ordinary skill in the art at the time of the invention that the method and system of evaluating the performance of business operations as taught by Pulford would have benefited from the teachings of Sweeney et al to produce the predictable result of, "...reporting which of steps 22-66 takes the longest time and is a bottleneck in the repair process thus indicating opportunities for improving the efficiency of the repair process" (Sweeney et al, paragraph 0026).

12. CLAIMS 8 and 19:

With regard to Claims 8 and 19, Pulford does not specifically teach *wherein step (d) comprises sorting the quality data according to one of the repair stages*. Sweeney et al teaches *wherein step (d) comprises sorting the quality data according to one of the repair stages* in analogous art of a vehicle undergoing autobody repair for the purposes of, "The software may sort the vehicles which remain in a step for longer than a predetermined time..." (see at least paragraph 0026).

It would have been obvious to one of ordinary skill in the art at the time of the invention that the method and system of evaluating the performance of business operations as taught by Pulford would have benefited from the teachings of Sweeney et al to produce the predictable result of, "The software may sort the vehicles which remain in a step for longer than a predetermined time..." (Sweeney et al, paragraph 0026).

13. CLAIMS 9 and 20:

With regard to Claims 9 and 20, Pulford does not specifically teach *wherein the quality data includes the estimate data and step (d) comprises sorting the quality data by a repair estimate factor selected from the group consisting of vehicle manufacturer, vehicle model, vehicle year, insurance company, repair time, labor cost, parts cost, materials cost, total repair cost, repair facility overhead and repair level*. Sweeney et al teaches *wherein the quality data includes the estimate data and step (d) comprises sorting the quality data by a repair estimate factor selected from the group consisting of vehicle manufacturer (make), vehicle model (model), vehicle year (year), insurance company, repair time, labor cost, parts cost, materials cost, total repair cost, repair facility overhead and repair level* in analogous art of a vehicle undergoing autobody repair for the purposes of, "...identify classes of vehicles which remain in a repair step for longer that the predetermined length of time..." (see at least paragraph 0026).

It would have been obvious to one of ordinary skill in the art at the time of the invention that the method and system of evaluating the performance of business operations as taught by Pulford would have benefited from the teachings of Sweeney et al to produce the predictable result of, "...identify classes of vehicles which remain in a repair step for longer that the predetermined length of time..." (Sweeney et al, paragraph 0026).

14. CLAIMS 10 and 21:

With regard to Claims 10 and 21, Pulford teaches *wherein step (d) comprises sorting the quality data according to a geographic area of the repair facility (Districts)* (see at least column 6, lines 9-66 and FIG. 8).

15. CLAIMS 11 and 22:

With regard to Claims 11 and 22, Pulford does not specifically teach *wherein steps (b), (c), (d) and (e) are performed on a computer network*. Sweeney et al teaches *wherein steps (b), (c), (d) and (e) are performed on a computer network* in analogous art of a vehicle undergoing autobody repair for the purposes of, "...computer network..." (see at least paragraph 0006).

It would have been obvious to one of ordinary skill in the art at the time of the invention that the method and system of evaluating the performance of business operations as taught by Pulford would have benefited from the teachings of Sweeney et al to produce the predictable result of, "...computer network..." (Sweeney et al, paragraph 0006).

16. CLAIMS 12, 23, and 24:

With regard to Claims 12, 23, and 24, Pulford does not specifically teach *wherein the computer database of step (c) is maintained on a global communications network*. Sweeney et al teaches *wherein the computer database of step (c) is maintained on a global communications network* in analogous art of a vehicle undergoing autobody repair for the purposes of, "...global computer communications network..." (see at least paragraph 0015).

It would have been obvious to one of ordinary skill in the art at the time of the invention that the method and system of evaluating the performance of business operations as taught by Pulford would have benefited from the teachings of Sweeney et al to produce the predictable result of, "...global computer communications network..." (Sweeney et al, paragraph 0015).

Conclusion

17. The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Foxford et al (U.S. 6,804,589) discloses a system and method for efficiently capturing and reporting maintenance, repair, and overhaul data.
- Renwick et al (U.S. Pub. No. 2002/0188479) discloses a method of processing vehicle damage claims.
- Harvey, "Service quality: a tutorial", Journal of Operations Management 16 (1998) 583-597, discloses various approaches and techniques to improve performance quality.
- Stewart et al, "Professional service quality", Journal of Retailing and Consumer Services, Vol. 5, No. 4, pp. 209-222, 1998, discloses the evaluation of professional service quality, the concepts of quality and value, and dimensions relating to outcome and process.

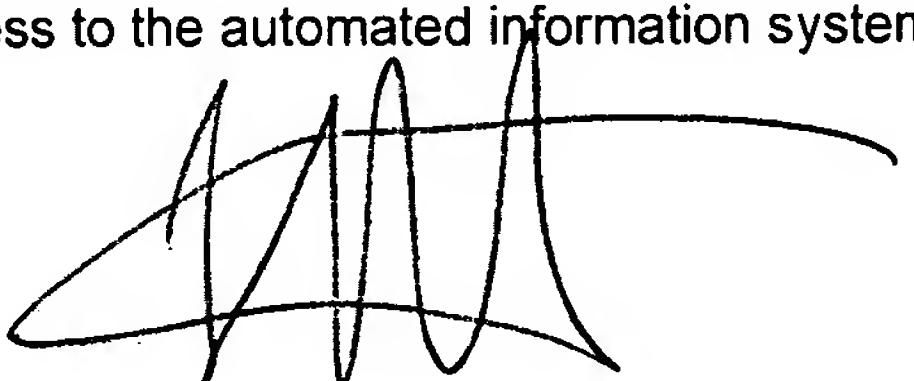
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas Mansfield whose telephone number is 571-270-1904. The examiner can normally be reached on Monday-Thursday 8:30 am-6 pm, alt. Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 571-272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



17 December 2007
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